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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

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Rev transport 11 no. 6:270 Je '64.

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OROVEANU, Matei, I., ing.

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Desaturation of a porous medium due to gravity. Rev mec appl
9 no.4:727-745 '64.

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Determinarea Circulatiei Pentru o Aripă in Prezenta Unui Suflu Axial de Sectiune Circulară (La Détermination de la Circulation pour l'Aile en Présence d'un Souffle Axial de Section Circulaire), T. Oroveanu. *Rumania, Acad. Rumanian People's Rep., Inst. Appl. Mech., Studies & Res. in Appl. Mech.,* July-Dec., 1953, pp. 307-313. In Rumanian. Determination of the flow around an airfoil subjected to propeller slipstream of axial circular cross section.

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

RHA Vmk adg

OROVEANU, T.; PASCAL, H.

Flow of a compressible mixture of liquid and gas through a porous medium. p. 1311. Academia Republicii Populare Romine. COMUNICARILE. Bucuresti. Vol. 5, no. 6, June 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, no. 9, Sept. 1955

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

OROVEANU, T.

Problem of flow through a porous non-homogeneous medium. p. 1625

Academia Republicii Populare Romine. COMUNICARILE. Bucuresti.

Vol. 5, no. 11, Nov. 1955.

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

OROVEANU, T.

Problem of the flow of petroleum to the oil well in the case of some variation of permeability. p. 333. Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APLICATA. Bucuresti. Vol. 6, no. 3/4; July/Dec. 1955

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Oroveanu, T.

Asupra unei Probleme de Scurgere Printr-Un Mediu Poros Neomogen. T. Oroveanu. *Mecanică Aplicată*, Comun. ... R.P.R. No. 11, 1955 Reprint. 5

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OROVEANU, T.

Dezvoltare Cer[illegible] de Mecanica Fluidelor și Aerodinamică în Țara Noastră. [illegible] Stud. Cerc. Mec. Aplic., [illegible]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

OROVEANU, T.

1181. Oroveanu, T., Contribution to the estimation of the circulation distribution around an airfoil influenced by the propeller jet (in German), Acad. Repub. pop. Rom. Rev. Mecan. appl. 1, 1, 63-70, 1956.

Problem stated in the title is treated under the following assumptions: (1) The velocities are such that the air can be considered as incompressible; (2) the air jet behind the propeller had the form of circular cylinder; (3) the axial velocity of air particles is constant over the cross section of this cylinder—only the influence of axial velocity is taken into account; (4) the airfoil in-

OROVEANU, T.; PASCAL, H.

The speed of plane waves in a compressible mixture of liquid and gas. p. 419. Academia Republicii Populare Romine. COMUNICARILE. Bucuresti. Vol. 6, no. 3, Mar. 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, no. 9, Sept. 1955

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

OROVEANU, T.

Oroveanu, T. et Ionescu, P. Détermination des pertes de fluide à travers l'espace compris entre le piston et le cylindre d'une pompe. Com. Acad. R. P. Romîne 6 (1956), 871–876. (Romanian. Russian and French summaries) 1-FW 4 4E4f

The author's object is to determine the loss of fluid across a region bounded by the piston and the cylinder of a pump. The problem is reduced to the determination of the laminar motion in the region bounded by two coaxial cylinders. The velocity of the interior cylinder varies with time.

The authors obtain explicit expressions for the velocity distribution and the discharge. These expressions contain the Bessel functions $J_0(z)$ and $Y_0(z)$ under the integral

OROVEANU, T.

Determination of losses of liquids through the space between the piston and the cylinder, taking into consideration their eccentricity.

P. 1351 (Academis Republicii Populare Romine. Comunicarile. Vol. 6, no. 12, Dec. 1956 Burcuresti, Rumania)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

OROVEANU, T.

Distrs 4E4f

1063. Oroveanu, T., and Pascal, H., Plane radial steady flow of liquid and gas mixture in a porous medium (in Rumanian), *Studii si Cercetari Mecan. appl.* 7, 2, 387-391, 1956.

Steady flow of liquid and gas mixture toward a well situated at center of circular bearing is considered, flow being assumed plane radial. Using results of previous study [*Acad. Republ. pop. Rom. Comm.* 4, no. 9, 1955], authors establish formulas giving liquid and gas discharge under different given pressure conditions.

V. N. Constantinescu, Rumania

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ORCVLAN, T.

Studies on the flow of an air current ... ventilation of ...

... (Academia ... Institutul de Tecnica ... Si Cercetari de Tecnica ... July/Sept. ...)

Monthly Index of East European Accessions ... Vol. 7, ...
February 195

CROVEAN, T.

Approximate ethod for the study of the stationary plane radial f[illegible] id and gas through a porous medium.

p. 541 (Academia Republicii Populare Romine. Institutul de Mecanica [illegible] Si Cercetari de Mecanica Aplicata. Vol. [illegible], no. [illegible], 1957. Bucuresti, [illegible])

Monthly Index of East European Accessions (EEAI) . . Vol. 7, no. . ., February 1958

Oroveanu, T.

On a class of flows through nonhomogenous porous media. p. 937.

Academia Republicii Populare Romine. STUDII SI CERCETARI DE MECANICA APLICATA. Bucuresti, Rumania. Vol. 9, no. 4, 1958.

Monthly List of East European Accessions (EEAL) LC Vol. 9, no. 2, January 1960.

Uncl.

OROVEANU, T.; PASCAL, H.

On the propagation of pressure waves in a liquid flowing through a porous medium. In English. p.445.

REVUE DE MECANIQUE APPLIQUEE. (Academia Republicii Populare Romine. Institutul de Mecanica Aplicata)
Bucuresti, Rumania
Vol. 4, no. 3, 1959.

Monthly list of Eastern European Accession Index (EEAI) LC vol. 8, no. 11
November 1959
Uncl.

R/008/60/000/004/003/018
A125/A126

AUTHOR: Oroveanu, T.

TITLE: On the liquid - liquid dislocation in a porous medium

PERIODICAL: Studii şi Cercetări de Mecanică Aplicată, no. 4, 1960, 847 - 863

TEXT: The author presents some contributions to the clarification of the dislocation of one liquid by another liquid, especially applied to the exploitation of oil deposits, into which water has been injected. The law of Darcy is supposed to be valied. The problem has been studied before by A. M. Pirverdian (Ref. 7: Dvizheniye dvukhfaznogo neszhimayemoy smesi v poristoy srede. Prikladnaya matematika i mekhanika XVI, 6, 711 - 714) and by S. N. Buzinov and I. A. Charnyy (Ref. 2: O dvizhenii skachkov nasyshchennosti pri fil'tratsii dvukhfaznoy zhidkosti. Izvestiya Akademii Nauk, SSSR, OTN, 7, 142 - 146, 1957). Considering the usual hypotheses concerning the flow of liquids through porous media, the author establishes the differential equation of the linear flow. Because of the expressions representing the effect of the capillarity this equation cannot be integrated by the usual method. If this capillarity effect is neglected, one arrives at an equation with partial derivatives of the first

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order - quasi-linear - for which the problem can be solved easily with the initial values. The existance of a displacement front has been proved in the theory of S. E. Buckley and M. S. Leverett (Ref. 1: Mechanism of Fluid Displacement in Sands. AIME Transactions, 146, 107 - 116, 1942). The effect of gravitation has been studied by the author by using some simplifying hypotheses of A. M. Pirverdian (Ref. 6: O dvizhenii podoshvennoy vody v poristoy srede. Prikladnaya matematika i mekhanika, XVI, 2, 223 - 226, 1952) and I. A. Charnyy (Ref. 3: Dvizheniye granitsy razdela dvukh zhidkostey v poristoy srede. Izvestiya Akademii Nauk SSSR, OTN, Energetika i avtomatika, 3, 104 - 120, 1959). In case of a non-homogeneous porous medium, the displacement phenomenon is influenced only by the variation of the porosity. There are 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The three references to the English language publications read as follows: S. E. Buckley, M. C. Leverett, Mechanism of Fluid Displacement in Sands, AIME Transactions, 146, 107 - 116, 1942; M. Muskat, Physical Principles of Oil Production. McGraw Hill, New York, 1949, 311 - 321.; D. R. Shrewe, L. W. Welch, Jr.: Gas Drive and Gravity Drainage Analysis for Pressure Maintenance operations. Journal of Petroleum Technology, June, 136 - 143, 1956.

SUBMITTED: March 3, 1960

Card 2/2

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R/008/60/000/005/011/014
A231/A126

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AUTHOR: Oroveanu, T.

TITLE: On the flow of gases through non-homogeneous porous media

PERIODICAL: Studii şi Cercetări de Mecanică Aplicată, no. 5, 1960, 1249 - 1267

TEXT: The author reviews the possibilities for solving the problem of the flow of gases through porous media of variable permeability, indicating some approximate solutions for the stationary and non-stationary motions, supposing that the permeability and porosity variations satisfy some conditions mentioned in the article. Referring first to the non-stationary flow of a gas through a non-homogeneous and anisotropic porous medium, he establishes the continuity equation

$$\frac{\partial}{\partial x_i}(\rho v_i) = -m\frac{\partial \rho}{\partial t}, \tag{1}$$

in which m is the porosity, ρ the specific mass of the gas and v_i the components of the filtration speed. Then, the author deduces the equation

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$$\frac{\partial}{\partial x_i}\left(\frac{k_{ij}}{\mu}\frac{\partial p^{n+1}}{\partial x_j}\right) = (n+1)\, m \frac{\partial p^n}{\partial t}. \qquad (7)$$

in which p is the pressure, k_{ij} the components of the permeability tensor in function of the x_i coordinates, and μ the dynamic viscosity of the gas. Since the flow in the gas deposits is isothermic, n can be considered. to be equal to 1 (n = 1), and (7) changes into

$$\frac{\partial}{\partial x_i}\left(\frac{k_{ij}}{\mu}\frac{\partial p^2}{\partial x_j}\right) = 2m\frac{\partial p}{\partial t}. \qquad (8)$$

The simplified equation

$$\frac{\partial}{\partial x_i}\left(k_{ij}\frac{\partial p^{n+1}}{\partial x_j}\right) = (n+1)\, m\mu \frac{\partial p^n}{\partial t}, \qquad (10)$$

represents the case in which the gas viscosity is not very accentuated, and the pressure differences are not very great. If the gas is not ideal as considered before, the continuity equation can be expressed by

$$\frac{\partial}{\partial x_i}\left(\frac{1}{\mu Z} k_{ij}\frac{\partial p^2}{\partial x_j}\right) = \frac{2m}{Z}\left[\frac{\partial p}{\partial t} - p\frac{\partial (\log Z)}{\partial t}\right]. \qquad (12)$$

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in which Z is the deviation factor, variable with the pressure. Since the equations (7) and (12) cannot be solved, the author assumes that the porous medium be isotropic, but non-homogeneous, and obtains the equation

$$\frac{\partial}{\partial x_i}\left(\frac{k}{\mu Z}\frac{\partial p^2}{\partial x_i}\right)=\frac{2m}{Z}\left[\frac{\partial p}{\partial t}-p\frac{\partial(\log Z)}{\partial t}\right]. \qquad (15)$$

indicating the particularity of the isothermic flow. For the case of stationary flow, linear flow is expressed in formulas leading to equation

$$\frac{\partial}{\partial x_i}\left(k\frac{\partial\psi}{\partial x_i}\right)=0 \quad (i=1,2,3). \qquad (20)$$

The obtained result reduces the problem to the stationary flow of a non-compressible fluid through a non-homogeneous porous medium. The simplest particular case is given if the function $k\Psi$ is harmonical, since Ψ then is also harmonical. Another approximating solution is tried on the grounds that the permeability varies between approximate limits. The problem is thus reduced to the determination of a harmonic function, finally obtaining the first category of approximate solutions. The equation (20) can also be written in the form of

$$\frac{\partial^2\psi}{\partial x_i\partial x_i}+\frac{\partial(\log k)}{\partial x_i}\frac{\partial\psi}{\partial x_i}=0, \qquad (28)$$

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on the basis of which one obtains other approximate solutions, supposing that the function k has a slow variation, with the upper and lower limits being very close to each other. Considering further derivatives of these functions for certain cases, accurate solutions can be obtained by using the method of variable separation, leading to the equations

$$\frac{d^2X_1}{dx_1^2} + \frac{1}{k_1}\frac{dk_1}{dx_1}\frac{dX_1}{dx_1} + \lambda_n^2 X_1 = 0 \qquad (38)$$

$$\frac{d^2X_2}{dx_2^2} + \frac{1}{k_2}\frac{dk_2}{dx_2}\frac{dX_2}{dx_2} - \lambda_n^2 X_2 = 0, \qquad (39)$$

λ_n^2 being the separating constant. The solution of these two equations depends on the functions

$$\frac{1}{k_1}\frac{dk_1}{dx_1} = \frac{d(\log k_1)}{dx_1}, \quad \frac{1}{k_2}\frac{dk_2}{dx_2} = \frac{d(\log k_2)}{dx_2}. \qquad (40)$$

By separating the variables, solutions can be obtained through

$$\frac{d^2\xi_2}{dx_2^2} + [\beta^2 - \lambda_n^2 + f_2(x_2)]\,\xi_2 = 0, \qquad (48)$$

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with λ_n^2 being the separating constant. For the case of non-stationary flow of a gas through a non-homogeneous porous medium, there are some difficulties due to the non-linear differential equation of the problem. The linearization of the differential equation can be accomplished without taking the variation of viscosity and the pressure into consideration. Admitting that the flow is isothermic (n = 1), initial formulas can be expressed by

$$\frac{\partial}{\partial x_i}\left(\frac{k}{\mu} p \frac{\partial p}{\partial x_i}\right) = m \frac{\partial p}{\partial t}. \quad (49)$$

leading to the equations

$$\frac{\partial}{\partial x_i}\left(k \frac{\partial f}{\partial x_i}\right) = m\left[a + \alpha b\left(\frac{1}{\mu}\right)_m\right]\frac{\partial f}{\partial t} \quad (59)$$

$$\frac{\partial}{\partial x_i}\left(k \frac{\partial f}{\partial x_i}\right) = \varkappa m \frac{\partial f}{\partial t}, \quad (60)$$

into which the notation $\varkappa = a + \alpha b(\frac{1}{\mu})_m$, (61) has been introduced. To justify the approximations, the author mentions an example taking as the starting point the viscosity of methane at a temperature of t = 75°C. The values of the viscosity for different pressures as well as the value of the $\frac{1}{\mu}$ ratio

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are tabulated. The function ω is calculated by graphical integration leading to tabulated values of the variation curve of the $\frac{1}{\mu}$, and $(\frac{1}{\mu})_m$ functions. These values supply for the considered pressure interval: $(\frac{1}{\mu})_m$ medium= 66.44. The constants α and β of the function f can be computed by the formulae

$$\alpha = \frac{\log \frac{\bar{\omega}_2}{\bar{\omega}_1}}{\bar{\omega}_2 - \bar{\omega}_1}, \quad \beta = \frac{\alpha (\bar{\omega}_2^2 - \bar{\omega}_1^2)}{2 (e^{\alpha\bar{\omega}_2} - e^{\alpha\bar{\omega}_1})}, \qquad (62)$$

with ω_1 and ω_2 being the values of the function ω, corresponding to the pressures p_1 and p_2. Similar conclusions can be obtained by starting from the variation of the gas viscosity with the pressure at other temperatures. The problem can be studied by starting from the equation (60). Another difficulty is that, except the permeability k, the porosity m can also be variable from one point to the other. The establishment of a ratio between the permeability and porosity was not satisfactorily solved yet. Thus, the permeability and the porosity have to be considered as two independent points. In case of a simple linear flow, the flowing phenomenon depends on a single spatial variable x, the equation (60) can be expressed by

$$\frac{\partial}{\partial x}\left(k \frac{\partial f}{\partial x}\right) = \varkappa m \frac{\partial f}{\partial t}. \qquad (63)$$

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easily obtaining the solution $f = f_1(x) + f_2(t)$, (64). The author first examines the possibilities of finding a solution in form of a product. Assuming for the pressure the initial condition $t = 0$, $p = p_i$, in which p_i is a constant, as well as the limit conditions $x = 0$, $p = p_s$; $x = 1$, $\frac{\partial p}{\partial x} = 0$, the pressure p_s having a constant value, the author deduces the solution in the form of a product: $F_n = F_{1n}(x)F_{2n}(t)$, (71). The separation of the variables leads to the solution of a Sturm-Liouville problem in the form of a normal equation of Liouville

$$\frac{d^2y_n}{d\xi^2} + [\nu_n^2 - g(\xi)]\, y_n = 0, \qquad (77)$$

The solution of this equation is finally given by a non-homogeneous Volterra-type integral equation of the second order

$$y_n(\xi) = A_{1n}\sin(\nu_n\xi) + B_{1n}\cos(\nu_n\xi) + + \frac{1}{\nu_n}\int_0^\xi \sin[\nu_n(\xi - \tau)]\, g(\tau)\, y_n(\tau)\, d\tau. \qquad (80)$$

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On the basis of the first limit condition, the author deduces the approximate solution of F_{1n}, the proper values ν_n to be determined by the second limit condition. After having determined the constants D_n by the initial condition, one easily finds the equation of ω,

$$\bar{\omega} = \frac{1}{\alpha} \log\left[\frac{1}{\beta}(km)^{-\frac{1}{4}} \sum_{n=0}^{\infty} D_n \sin\left(\frac{2n+1}{2}\xi\right) e^{-\frac{(2n+1)^2}{4l^2\varkappa}t} + e^{\alpha\bar{\omega}_r}\right] \quad (91)$$

and the pressure p, with the aid of the constructed $\omega(p)$ curve. The approximate solution becomes accurate if the k·m product is constant, which can be obtained by admitting some particular variation laws for the k and m values. The approximation introduced becomes more favorable with n increasing. In case of a plane - radial flow, the equation (60) is expressed by

$$\frac{1}{r}\frac{\partial}{\partial r}\left(kr\frac{\partial f}{\partial r}\right) = \varkappa m \frac{\partial f}{\partial t}. \quad (92)$$

Considering the initial conditions and the limit conditions, one finds the equations

$$\frac{d}{dr}\left(kr\frac{dF_{1n}}{dr}\right) + \lambda_n^2 mr F_{1n} = 0 \quad (96)$$

$$\frac{dF_{2n}}{dt} + \frac{\lambda_n^2}{\varkappa} F_{2n} = 0. \quad (97)$$

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With regard to the first equation (96), the change of function

$$y_n = (kmr^2)^{\frac{1}{4}} F_{1n}, \quad \xi = \frac{1}{I}\int_{r_0}^{r}\sqrt{\frac{m}{k}}\,dr, \quad I = \frac{1}{\pi}\int_{r_0}^{r_c}\sqrt{\frac{m}{k}}\,dr, \qquad (98)$$

was found in equation (77). The author has indicated in this paper some special methods of approximate solutions for the stationary and non-stationary flow of gases through porous media of variable permeability. There are 5 tables and 12 references: 9 Soviet-bloc and 3 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ph. Morse, H. Feshbach, "Methods of Theoretical Physics", I. Mac Graw-Hill, New York, 1953, 739-743.

SUBMITTED: May 9, 1960

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OROVEANU, T.

On the Dupuit generalized formula. Studii cerc mec apl 12 no.5:1147-1149 '61.

OROVEANU, T.

A problem of the flow in the porous fissured media. Comunicarile AR 12 no.7:809-813 Jl '62.

1. Comunicare presentata de academician E.Carafoli.

OROVEANU, T.

A limit case of petroleum displacement by water in a porous fissured medium. Studii cerc mec apl 13 no.3:719-728 '62.

OROVEANU, T.; STANESCU, Cr.

Aeroelastic divergence of rotary supporting surfaces with variable section. Studii cerc mec apl 13 no.4:837-847 '62.

ACCESSION NR: AP3003830 R/0008/63/000/003/0497/0506

AUTHOR: Oroveanu, T.

TITLE: Some considerations on the flow of compressible fluids through nonhomogeneous porous media

SOURCE: Studii si cercetari de mecanica aplicata, no. 3, 1963, 497-506

TOPIC TAGS: compressible fluid, porous medium, nonhomogeneous medium, specific density, variable permeability

ABSTRACT: This is a continuation of some previous work on the flow of compressible fluids. The author modifies the Darcy law to fit the case of nonhomogeneous media given by T. Oroveanu in "Considerations on the Flow of Compressible Liquids Through Nonhomogeneous Porous Media," Studii si cercetari de mecanica aplicata 12, 2, 1961. The equation is:

$$\frac{\partial v_i}{\partial t} = -\frac{\partial V}{\partial x_i} - \frac{1}{\rho}\frac{\partial p}{\partial x_i} - \frac{\mu}{\rho k} v_i \quad (i = 1, 2, 3)$$

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where v_i = velocity,
ρ = specific density
p = pressure
μ = dynamic coefficient of viscosity
k = permeability of the porous medium, a scalar
v = potential due to external forces per unit mass of fluid.

The author then proceeds to derive from this equation the differential equation of the specific mass of the specific pressure. Next he repeats the same procedure to derive the same equations for the case when the fluid is a gas. Orig. art. has: 45 equations.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 12Aug63 ENCL: 00

SUB CODE: AI, PH NO REF SOV: 002 OTHER: 002

Card 2/2

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Some considerations on the flow of compressible fluids through nonhomogeneous porous media. Rev mec appl 8 no.5: 769-778 '63.

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"Progress in solid mechanics." Vol. 1. Reviewed by T. Oroveanu.
Studii cerc mec apl 14 no.2:484-485 '63.

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Considerations on the flow of compressible fluids through nonhomogeneous porous media. Studii cerc mec apl 14 no.3: 497-506 '63.

OROVEANU, T.

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OROVEANU, T.

On gravitational desaturation of a porous medium. Studii cerc mec apl 15 no.1:35-53 '64.

"Theory and fundamental research in heat transfer." Edited by J.A. Clark. Reviewed by T. Oroveanu. Ibid.:278-280 '64.

OROVEANU, T.; OSNEA, Al.

On the linear flow of a compressible liquid through a porous medium. Studii cerc mec apl 14 no.5:1011-1028 '63.

1. Institututal de petrol, gaze si geologie din Bucuresti (for Osnea).

OROV[illegible], T.

"Theory of elastic deformation" by Wilhelm Müller. Reviewed by T. Oroveanu. Studii cerc mec apl 14 no.4:[illegible] 979 [illegible].

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[illegible], T.

"Studies on hyp[illegible]tation aerodynami[illegible]" by N.V.Patraulea. Reviewed by T. [illegible]. [illegible] mec apl 14 no.4:971-972 '63.

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[illegible] by [illegible] Hoffmann. Reviewed by [illegible]. [illegible] 1949, [illegible]

OROVEANU, T.

Applications of an approximate system for determining the eigenvalues in the Sturm-Liouville problem. Rev mec appl 9 no. 2:393-404 '64.

OROVEANU, T.; OSNEA, Al.

Linear flow of a compressible liquid through a porous medium.
Rev mec appl 9 no. 3:581-599 '64.

1. Petroleum, Gas and Geology Institute, Bucharest.

OROVEANU, T.

On the differential representation of Darcy's Law. Studii cerc mec apl 15 no.2:487-494 '64.

1. Submitted December 5, 1963.

OROVEANU, T.

Considerations on the flow in the case of dislocation of petroleum by water in fissured porous media. Studii cerc mec apl 16 [i.3. 15] no.3:623-634 '64.

1. Submitted January 20, 1964.

OROVECZ, B. 1948

(Orszagos Mentoszolgalat es a budapesti Paz.Pet/Tud.Torvenyskzeki Orvostani Intezetenek Kozlemenye)

"On Blood Alcohol Determinations Following Road Accidents."

Nepegeszs., Budapest, 1948 4/24(366-370)
Abst: Exc. Med. V. Vol. 11, No. 5, p. 404

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11-H

PROCESSES AND PROPERTIES INDEX

Report on investigations of the alcohol content of blood after street accidents Béla Ökrös and Róbert Budvári. *Népegészségügy* 29, 300-70(1948). Blood samples of 55 persons were examd. for alc. content according to Widmark; 27 were drivers and 28 were victims. In 7 and 10 cases, resp., the alc. content of the blood was above 0.08%. Obligatory alc. detn. in blood is proposed after street accidents.

István Finály

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

OROVECZ, B.
(6210)

Alkohol kimutatasa a kilegzett levegoobol az. u. n. Harger-eljaras segitsegevel
Determination of alcohol in expired air with Harger's method.
Orvosi Hetilap, Prague 1949, 90/9 (274-277) Illus. I

The availability of Harger's potassium permanganate test is discussed and a special bag, for use in police and industrial health stations is described. The great advantage of the test lies in its practical use in cases of street and industrial accidents.

Balint - Budapest

So: Excerpta Medica, Vol. II, No. 12, Sec. II, December 1949

OROVECZ, Bela, Dr.

Mass accidents and their care. Nepegeszsegugy 38 no.6:153-157 June 57.

1. Kozemeny oz Orsvagos Mentoxolaglatol (foigazgato: Orovecz Bela dr.)
(DISASTERS
mass casualties, organiz. of care (Hun))

IVANYI, Jeno, dr.; OROVECZ, Bela, dr.

Fatal electric injuries in Budapest in 1952-1955. Orv. hetil. 98 no.15:382-386 14 Apr 57.

1. A Fovarosi Villamosvasut Egeszsegugyi Osztalya (vezeto: Kontra, Laszlo, dr.) Orszagos Mentoszogalat (foigazgato: Orovecz, Bela, dr.) kozlemenye.
(ELECTRICITY, inj. eff.
fatal accid. in Budapest, statist. (Hun))
(ACCIDENTS, statist.
electric accid. in Budapest, fatal (Hun))

OROVECZ, Bela, dr.; IRANYI, Jeno, dr.; SOMOGYI, Endre, dr.

Preventive measures for protecting employees working in electromagnetic fields. Munkavedelem 6 no.4/6:34-39 '60.

1. Orszagos Mentoszolgalat; Orszagos Rheuma es Furdougyi Intezet Fizikotherapias Jarobetegrendelese; Budapesti Orvostudomanyi Egyetem Igazsagugyi Orvostani Intezete.

OROVECZ, Bela, dr.; IRANY, Jeno, dr.; SOMOGYI, Endre, dr.

Are radio-frequency electric waves harmful? Musz elet 15 no.12:6 Je '60. (KEAI 9:9)

(Electric waves) (Radio)

IRANYI, Jeno, dr.; OROVECZ, Bela, dr.; SOMOGYI, Endre, dr.

Disorders of the vegetative nervous system caused by complex of physical factors. Orv.hetil. 101 no.27:941-945 3 Jl '60.

1. Orszagos Reuma- es Furdougyi Intezet, Orszagos Mentoszolgalat, Budapesti Orvostudomanyi Egyetem, Igazsagugyi Orvostani Intezet.
(AUTONOMIC NERVOUS SYSTEM dis.)

LEBEDEV, T.S.; SOBAKAR', G.T.; OROVETSKIY, Yu.P.; BOLYUBAKH, K.A.

Geologic structure of the conjugated zone of Pokrovo-Kireevskiy and Tel'manovo blocks in the northeastern part of the Azov Sea region. Geofiz.sbor. no.1:32-36 '62. (MIRA 16:3)

1. Institut geofiziki AN UkrSSR.
(Azov Sea region--Geology, Structural)

LEBEDEV, T.S. [Lebediev, T.S.]; SOBAKAR', G.T. [Sobakar, H.T.]; OROVETSKIY, Yu.P. [Orovets'kyi, IU.P.]; BOLYUBAKH, K.A.

Recent data on the geological structure of the zone of junction of the Pokrovo-Kireyevo and Tel'manovo blocks (northeastern part of the region of the Sea of Azov). Dop. AN URSR no.1:91-94 '62. (MIRA 15:2)

1. Institut geofiziki AN USSR. Predstavleno akademikom AN USSR V.G.Bondarchukom [Bondarchuk, V.H.].
(Donetsk Province—Geology, Structural)

LEBEDEV, Taras Sergeyevich; SOBAKAR' Grigoriy Timofeyevich; OROVETSKIY, Yuriy Pavlovich; BOLYUBAKH, Klavdiya Antonovna; SUBBOTIN, S.I., akademik, otv. red.; MEL'NIK, A.F., red.izd-va; RAKHLINA, N.P., tekhn. red.

[Tectonics of the central part of the northern slope of the Crimean Mountains and results of its studying; based on geophysical and geological data] Tektonika tsentral'noi chasti severnogo sklona Krymskikh gor i opyt ee izucheniia; po materialam geofizicheskikh i geologicheskikh issledovanii. [By] T.S.Lebedev i dr. Kiev, Izd-vo Akad. nauk USSR, 1963. 85 p. (MIRA 16:5)

1. Akademiya nauk Ukr.SSR (for Subbotin).
(Crimean Mountain--Geology, Structural)

LEBEDEV, T.S. [Lebediev, T.S.]; SOBAK..., G.T. [Sobakar, .T.]; OROV TSKIY, Yu.P. [Orovets'kyi, IU.P.]; BOLYUBA.., K.A.

New data on the tectonics of the central part of the northern slope of the Crimean Mountains on the basis of the materials of geophysical studies. Dop. AN URSR no.3:3..-390 '63. (.I.A 17:10)

1. Institut geofiziki A. URSR. Predstavleno akademikom AN URSR S.I. Subbotinym.

LEBEDEV, T.S.; SOBAKAR', G.T.; OROVETSKIY, Yu.P.

Physical properties, composition, and age of crystalline shales, sandstones, and spilite-type rocks in the northeastern Azov Sea region. Geofiz. sbor. no.4:19-27 '63. (MIRA 16:9)

1. Institut geofiziki AN UkrSSR.

BONDAREV, S.N.; OROVEY, N.Ya.; SOKOLON, I.I.

Pouring liquid magnesium into a titanium reactor. Titan i ego splavy no.6:21-22 '61. (MIRA 14:11)
(Titanium--Metallurgy)

44393

R/016/62/007/005/002/003
A001/A101

10.6100

AUTHORS: Orovyanu, T., Stenesku, K.

TITLE: On aeroelastic divergence of rotating carrying surfaces having variable cross-section

PERIODICAL: Académie de la République Roumaine. Revue de Mécanique Appliquée, v. 7, no. 5, 1962, 915 - 925 (Russian translation)

TEXT: The authors investigate the problem of determining the rate of twist divergence of a variable cross-section carrying surface rotating around some axis. They consider a cantilever carrying surface of variable cross-section (see Figure 1) with a rectilinear elastic line Oy in the following system of coordinates: $x_1 = x$, $y_1 = y - a$, $z_1 = z$; it is assumed that the surface rotates around axis Oz perpendicular to Oy. The differential equation of the elastic twist angle φ looks as follows:

$$\frac{d}{d\eta}\left[(1 - \beta\eta)^4 \frac{d\varphi}{d\eta}\right] + \lambda(1 - \beta\eta)^2(\alpha + \eta)^2 \varphi = 0. \qquad (14)$$

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and the corresponding boundary conditions are:

$$\eta = 0, \quad \varphi = 0, \tag{15}$$

and

$$\eta = 1, \quad \frac{d\varphi}{d\eta} = 0, \tag{16}$$

where $\alpha = \frac{a}{b}$, β is defined by the relation: $\frac{e}{e_0} = 1 - \beta\frac{y_1}{b}$, $\eta = \frac{y_1}{b}$ (a, b and e are shown in the Figure), and λ is a quantity depending on the structural parameters of the surface and the value of dynamic pressure. The problem is thus a particular case of the Sturm-Liouville problem, and determination of divergence rate is reduced to finding the least eigenvalue of parameter λ. Since the solution of this second-order differential equation is difficult, the authors apply the variational method sufficient to determine the eigenvalues of Equation 14 which is re-written in the operator form:

$$A\varphi - \lambda B\varphi = 0 \tag{17}$$

It is proved that operators are symmetric and positive-definite. According to the Ritz method, the n-order approximation of solution of Equation (17) is expressed like this:

$$\varphi_n = \sum_{k=1}^{n} a_k f_k, \qquad (25)$$

where a_k are constants. To determine λ, the authors write down the equation

$$(Af_k, f_m) - \lambda(Bf_k, f_m) = 0, \qquad (27)$$

whose least root represents the eigenvalue sought for. The elements f_n, called coordinate functions, are linear independent and satisfy both boundary conditions of the problem; they look as follows:

$$f_1 = \eta^2\left(\eta - \frac{3}{2}\right), \quad f_k = \eta^{k-1}(1 - \eta)^2, \quad k = 2,3,\ldots \qquad (28)$$

It is usually sufficient to limit oneself to the second approximation, in which case λ is the least root of an equation of second degree. Using this approximation the authors carry out numerical calculations for several particular values of parameters α and β and present the results in the tabular and graphical form.

On aeroelastic divergence of...

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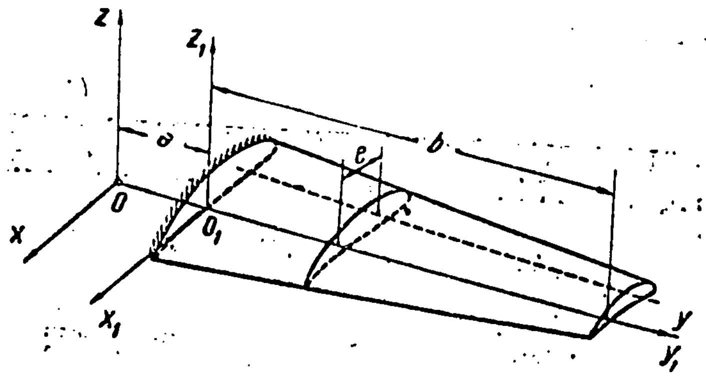
From the analysis of the results it is concluded that divergence rate in cases of large β-values is considerably higher than in the case of a constant cross-section carrying surface. There are 3 figures and 6 tables.

Figure 1.



Card 4/4

BLINOV, N.O.; VORONIN, V.V.; OROYEV, I.I.; KHOKHLOV, A.S.

Automatic camera for chromatography on paper. Lab.delo 9 no.3:58-59 Mr '63. (MIRA 16:4)

1. Institut khimii prirodnykh soyedineniy AMN SSSR.
(PAPER CHROMATOGRAPHY)

SHERSTOBITOV, Viktor Pavlovich; OROZALIYEV, K.K., kand. ist. nauk, red.

[The New Economic Policy in Kirghizistan, 1921-1925] Novaia ekonomicheskaia politika v Kirgizii (1921-1925). Frunze, Ilim, 1964. 610 p. (MIRA 17:12)

OROZALIYEV, S.

Characteristics of the distribution of branches of agriculture in Tien Shan Province; summary of reports. Uch. zap. Geog. fak. Kir. un. no.1:105-107 '55. (MLRA 10:2)
(Tien Shan Province--Agriculture)

OTORBAYEV, K.; GROZALIYEV, S.

The Son-Kul' depression. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 1 no.2:3-11 '59. (MIRA 13:9)
(Son-Kul' region—Geography)

OROZALIYEV, S.

[Geographic terminology of a Russian-Kirghiz dictionary]
Geograficheskie terminy russko-kirgizskogo slovaria. Frunze,
1960. 42 p. (MIRA 15:6)
(Russian language--Dictionaries--Kirghiz)
(Geography--Dictionaries)

OROZALIYEV, S.

Valuable study on the economic geography of Kirghizistan. Izv. Kir. fil. Geog. ob-va SSSR no.4:81-84 '63. (MIRA 16:12)

OROZBAYEV, T.

Effect of fertilizers on the yield and chemical composition of grasses in Aksay. Izv. AN Kir. SSR Ser. biol. nauk 4 no.6: 47-55 '62. (MIRA 16:6)

(Plants—Chemical analysis)
(Aksay(Kirghizistan)—Pastures and meadows—Fertilizers and manures)

L 24706-65 EWT(d)/EEC-4 JHB

ACCESSION NR: AP5002913 S/0109/65/010/001/0178/0181

10
B

AUTHOR: Turusbekov, M. T.; Orozobakov, T.

TITLE: Investigation of ultrashort-wave propagation beyond a series of obstacles

SOURCE: Radiotekhnika i elektronika, v. 10, no. 1, 1965, 178-181

TOPIC TAGS: ultrashort wave, ultrashort wave propagation, diffraction wave, Fresnel integral, Fresnel zone

ABSTRACT: A series of experiments was conducted in order to gain information on ultrashort-wave propagation in mountain terrain. Because of the multiplicity of factors affecting propagation under such conditions, the investigation was limited to diffraction propagation in the absence of signals reflected from the Earth's surface before and beyond the obstacles. A diagram is presented showing the disposition of the reception and transmission points and the obstacles (sheet metal or textolite shields). All the experiments were carried out at $\lambda = 3.2$ cm. A standard-signal

of a detector head, an amplifier, and a parabolic antenna (gain, 2070; radiation

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pattern, 3°). On the basis of both experimental and theoretical data, the following conclusions were made: 1) The common diffraction multiple of field attenuation beyond several obstacles is determined by the product of the diffraction multiples of each individual obstacle. 2) The argument values of Fresnel integrals are determined by different formulas depending on the region in which the reception point is located. 3) The predominant effect on the field at the reception point have either ... of Fresnel zones. 4) The field at the reception point is shaped field is attenuated. Orig. art. has: ...

ASSOCIATION: none

Card 2/3

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ACCESSION NR: AP5002913

SUBMITTED: 17Oct63 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3167

Card 3/3

KHIUBNER,R. [Hubner,R.]; OROZOV, B. [translator]

Some new installations for the automation of textile industry. Novosti avtomat telemekh 1:72-77 '62

OROZOV, DIM AL.

Orozov, Dim Al, Tekhnologiia na tukachestvoto za IV i V klas Sofiya (Narodna prosveta) 1951. 238 p. (Technology of weaving; a textbook for the 4th and 5th years of textile Gymnasiums)

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, NO. 1, Jan. 1954, Uncl.

OROZOV, Dim., inzh.

Form and position of the shuttle box valve. Leka promishl 2 no.8:9-11 '53.

OROZOV, D.

"Methods for Raising the Production of Warpers." p. 30,
(LEKA PROMISHLENOST, Vol. 3, No. 3, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

ORLOZOV, D.

ORLOZOV, D. Factors for increasing the productivity of the l[illegible]ms. p. [illegible]

Vol. 5, no. 5, 1956
LEKA PROMISHLENOST.
TECHNOLOGY
Sofiia, Bulgaria

So: East European Accession, Vol. 6, No. [illegible], March 1[illegible]7

OROZOV, D.

Practical instructions for mixing synthetic fibers with wool in the worsted and carding spinning plants. p. 13.

TEKSTIINA PROMISHLENOST, Sofiia, Bulgaria, Vol. 8, no. 2, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 10, Oct. 1959, Uncl.

ORОZOV, Dimitur, inzh., uchitel-spetsialist

Basic adjustment of the Bulgarian automatic "IAntra-1" and IAntra-2" cotton looms. Tekstilna prom 10 no.5:15-21 '61.

1. Pri tekhnikuma po tekstil, Gabrovo.

OROZOV, D., inzh.

Instructions on the parallel regulation of the mechanisms of automatic looms "IAntra-1" and IAntra-2" with the aid of patterns. Tekstilna prom 11 no.3:12-14 '62.

1. U-1 pri Tekhnikuma potekstil, Gabrovo.

OROZOV, Dimitur, inzh.

Basic adjustments on wool weaving looms. Pt.2. Tekstilna prom 12 no.2:12-19 '62.

1. Uchitel-spetsialist pri Tekhnikuma po tekstil, Gabrovo.

GROZOV, Dimitur, inzh., u-l spetsialist

Basic adjustments on wool weaving looms. Pt. 1. Tekstilna prom 12 no.1:17-23 '63.

1. Tekhnikum po tekstil, Gabrovo.

ORPEL, M. A.

SOV/ 1-5-15-

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 15, p 5 (USSR)

AUTHORS: Savitskiy, Ye., Ageyenkova A. ., Orpel', M.A., Pshenichnikova, I.

TITLE: The Effect of Strontium Oxide on the Chemical Resistance of Sheet Glasses

PERIODICAL: Byul. te n -e on. inform. Sovnarkhoz BSSR, 1958, Nr -

ABSTRACT: A total of 7 glasses have been synthesized on the base of the composition (in %): SiO_2-72, Al_2O_3-2, CaO-7, MgO-, Na_2O-15, which proved in production practice to be the best composition for sheet glass. The effect of the substitution of CaO by SrO, and MgO by SrO on the chemical resistance of the glasses has been studied; SrO is introduced into the composition of the glasses instead of the mentioned oxides in equimolecular quantities. Raw materials: Lyubovskiy sand, Al_2O_3, CaCO, $MgCO_3$, $SrCO_3$, Na_2CO_3. The chemical resistance was determined by the action of [illegible] solutions of Na_2CO_3, [illegible], HCl and [illegible] using [illegible] [illegible] that SrO introduced into the composition of the glass at the expense of [illegible] (at the [illegible]) it is recommended to introduce [illegible] SrO) positive effects [illegible]

Card 1/

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

The Effect of ... on the Chemical Resistance of Sheet Glass

...sistance to ... solutions of alkalis ... It has been ... case of the action of alkali solutions on ...CO ... on the ... the process of glass destruction play the ...

1. ...

Card 2/...

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

BAUM, V.A., doktor tekhn. nauk, otv. red.; ORPIK, S.L., red.

[Utilization of solar energy in the national economy of the U.S.S.R.] Ispol'zovanie solnechnoi energii v narodnom khoziaistve SSSR. Moskva, Nauka, 1965. 125 p. (MIRA 18:4)

1. Moscow. Energeticheskiy institut.

H-7

COUNTRY : Czechoslovakia

CATEGORY : Chemical Technology. Chemical Products and Their Applications--Chemical and technological aspects* of the nuclear industry

ABS. JOUR. : RZKhim., No. 2 1960, No. 6417

AUTHOR : Sinbawi, H. A., Orphy, K., and Hedewi, F.

INST. : Not given

TITLE : The Concentration of Low-grade Egyptian Graphite

ORIG. PUB. : Rudy, 7, No 6, 200-203 (1959)

ABSTRACT : The authors have studied the concentration by flotation methods of low-quality graphite (composition in wt %: C 19.2, SiO_2 39, $CaCO_3$ 32.2, Fe_2O_3 1.5). The effect of the fineness of grinding on the yield of concentrate has been studied with 500-gm samples of which 55, 65, 75, 78, 80, and 85% pass through a sieve with openings of 0.074 mm diam. The flotation time was 10 min. Best results were obtained with fractions 78 and 80% of the particles in which pass through the above-

CARD: 1/3 237

COUNTRY : [illegible]
CATEGORY :

ABS. JOUR. : RZhKhim., No. 1960, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] yield of concentrate for those cases was [illegible] and 0.[illegible] and the [illegible] content [illegible] and [illegible] respectively. The optimal [illegible] for [illegible] petroleum crude [illegible] the best flotation reagent was found to be [illegible] The flotation process [illegible] neutral [illegible] medium [illegible] concentrat[illegible] decreases the [illegible] trate. The addition of small amounts of [illegible]

CARD: [illegible]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

COUNTRY : [illegible]
CATEGORY :

ABS. JOUR. : RZKhim., No. 1960, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [illegible] The repeated [illegible] of [illegible] [illegible] a product [illegible] This product was ground and mixed with a small amount of mineral [illegible] water was used as the medium in the flotation [illegible] which gave a concentrate containing up to [illegible]
[illegible] [illegible]

CARD: [illegible]

ORPO, [illegible], kand. tekhn. nauk; [illegible], [illegible], inzh.; [illegible], inzh.

[illegible]ermissible [illegible]

[illegible]roizv. [illegible]

[illegible]

MORRO, P.I.

*The Theory of the Hot Drawing of Tubes. P. T. Emelianenko and P. I. Orro (Teoria i Praktika Metallurgii (Theory and Practice of Metallurgy), 1937, 9, (4), 73-79; Chem. Zentr., 1938, 109, (I), 950).—[In Russian.] An equation is developed for the calculation of the energy required for the hot-drawing of tubes. This energy is the sum of the energies of deformation and friction. The most favourable conditions for drawing are discussed in connection with mathematical considerations of the drawing process.—D. R. S.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION